AIR COMMAND AND STAFF COLLEGE

AIR UNIVERSITY

OPERATIONS ASSESSMENT IN DECISION POINT DEVELOPMENT

by

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Abstract

While doctrine discusses some incorporation of operational assessment in the planning process, practice demonstrates that operational assessment is minimally integrated with the rest of the planning group. This reduces the effectiveness and accuracy of the operational assessment and minimizes the commander's situational awareness. Three items with the operational assessment process will be addressed: data collection, standardized operational objectives, and clarification of decision point recommendations.

While the OAT in the AOC utilizes a strategy-to-task methodology to aid with assessments, data collection remains a challenge in assessment accomplishment. Along with the development of the strategy-to-task methodology in the planning process with the establishment of AIRs, relationships between the organization responsible for the data collection and the OAT need to be established. By standardizing some objectives and respective strategy-to-task methodology, the organization responsible for the AIR could codify a standard procedure within their organization as to how and when the information would be available to the OAT.   With a working relationship between the organizations providing the data and the OAT founded on standardized AIRs, it would be possible to ensure that the data is provided in a manner that does not dramatically increase the workload and production of the organizations providing the data.

A second item is the potential of standardization for some of the operational objectives and their respective performance measures. Some operational objectives remain fairly standard in a typical air campaign. Though the objectives are standardized, their strategy-to-task linkages are recreated with each exercise or operation. While the specifics of each exercise and operation are different, the general concept, desired effect, and potential tasks for some objectives remain the same. By codifying the operational objectives, their respective performance measures, and

the organization responsible for the data within a template, this would allow more efficient data flow management for the OAT and enable organizations to incorporate needed information that is not already in their current data products. Standardized operational objectives and their respective strategy-to-task methodologies would reduce the wasted time reproducing methodologies for each exercise and allow for a refinement of the template into a more effective product.

While the one of the responsibilities of the OAT is providing recommendations to the JFACC, such as relevant decision point recommendations, doctrine and TTPs provide little direction on how to accomplish this task. While the strategy-to-task methodology does provide some information to the JFACC, it does not always directly link to the decision points identified during the planning process. When decision points are identified, a concurrent effort must be made to establish what assessment will support that decision point. This can be accomplished with the establishment of an interim milestone on specific objectives or the inclusion of another measure that should be tracked. By incorporating the decision points into the assessment process, the OAT could provide the JFACC with the progress on each operational objective, but also include progress toward a specific decision point, potential timeline until all factors for a decision point are accomplished, or the completion rate of specific items that relate to a decision point. With the inclusion of the OAT and the operational assessment process in the development of decision points and their potential data requirements, the data requirements would be established and the assessment would be monitored daily allowing for better recommendations to the JFACC.

Introduction

Thesis

While doctrine discusses some incorporation of operational assessment in the planning process, practice demonstrates that operational assessment is minimally integrated with the rest of the planning group. This reduces the effectiveness and accuracy of the operational assessment and minimizes the commander's situational awareness.

Background

According to doctrine, assessment is "a process that measures progress of the joint force toward mission accomplishment."[1] While Joint Publication 3-0 continues with mentioning that assessment can occur at three levels: strategic, operational, and tactical;[2] this paper will focus on the operational assessment conducted within the Operational Assessment Team (OAT) in the Strategy Division in the air and space operations center (AOC). Doctrine espouses that the operational level of assessment focuses on the question, "Are we doing things right,"[3] while the strategic level of assessment answers the question, "Are we doing the right things?"[4] The operational assessment done in the AOC should "support commanders' objectives … support commanders' decision cycles … and provide a basis for predictive analysis."[5] One goal of operational assessment is to provide the commander, which in the case of the AOC would be the Joint Force Air Component Commander (JFACC), with the necessary information for them to make timely appropriate decisions.

While the significance of assessment is indicated within doctrine, discussion of its inclusion in the planning process is limited. According to joint doctrine, "commanders and their staffs determine relevant assessment actions and measures during planning."[6] Air Force doctrine emphasizes the use of effects-based operations in the assessment process. "Within an effects-

based construct, it is impossible to think about actions and their effects without considering how accomplishment of the effects should be measured. Assessment is the process through which they are measured and the specific measures themselves are determined during planning."[7] While doctrine and Air Force tactics, techniques, and procedures (TTPs) mention how assessment should be incorporated into the AOC, there are aspects that are nebulous and require greater clarification.

Significance

Three items with the operational assessment process will be addressed: data collection, standardized operational objectives, and clarification of decision point recommendations. The first item of data collection can be summarized by "the OAT usually spends 90 percent of its time and manpower gathering and managing data, leaving only 10 percent devoted to synthesizing the data and producing the assessment."[8] While the guidance provided prescribes the use of assessment information requirements (AIRs), more can be done to improve the process. The OAT in the AOC utilizes a strategy-to-task methodology to aid with assessments. The strategy-to-task methodology provides a direct linkage of every task to the overall strategy guiding the air campaign. For the AOC, this means that any lethal or non-lethal action performed was planned and conducted based on its estimated effects and the resulting impact on the accomplishment of the objectives in the strategy. Along with the development of the strategy-to-task methodology in the planning process with the establishment of AIRs, relationships between the organization responsible for the data collection and the OAT need to be established. By standardizing some objectives and respective strategy-to-task methodology, the organization responsible for the AIR could codify a standard procedure within their organization as to how and when the information would be available to the OAT. While this

does not mean providing a different product specially made for the OAT, it could mean

incorporating that information in a product already being produced and including the OAT as

one of the report recipients. By utilizing already established reports, this would eliminate the

need to increase the workload on the organization providing the data. If the OAT would

mandate data to be provided in a specific format, this would increase the workload and

potentially hinder good relations between the organization and the OAT. While a vast amount of

time and effort is spent by the OAT consolidating and managing data, poor relationships with the

organizations providing the data can increase these difficulties. With a working relationship

between the organizations providing the data and the OAT founded on standardized AIRs, it

would be possible to ensure that the data is provided in a manner that does not dramatically

increase the workload and production of the organizations providing the data.

A second item is the potential of standardization for some of the operational objectives

and their respective performance measures. As mentioned, the OAT relies on the strategy-to-

task methodology developed during the planning phase to produce its assessment. Some

operational objectives remain fairly standard in a typical air campaign, such as gain and maintain

air and space superiority or support of land and sea operations. Though the objectives are

standardized, their strategy-to-task linkages are recreated with each exercise or operation. While

the specifics of each exercise and operation are different, the general concept, desired effect, and

potential tasks for some objectives remain the same. For example, with gain and maintain air

superiority, potential tactical objectives would cover the command and control aspect of an

integrated air defense system (IADS), strategic surface-to-air missiles (SAMs), tactical SAMs,

anti-aircraft artillery (AAA), and enemy fighter aircraft. While the adversary might have

different components to these tactical objectives, similar performance measures might be

applicable to the tactical tasks of these objectives and more importantly, the same organization would be responsible for providing the data to the OAT. By codifying the operational objectives, their respective performance measures, and the organization responsible for the data within a template, this would allow more efficient data flow management for the OAT and enable organizations to incorporate needed information that is not already in their current data products. Standardized operational objectives and their respective strategy-to-task methodologies would reduce the wasted time reproducing methodologies for each exercise and allow for a refinement of the template into a more effective product.

While the one of the responsibilities of the OAT is providing recommendations to the JFACC, such as relevant decision point recommendations, doctrine and TTPs provide little direction on how to accomplish this task. The OAT utilizes the strategy-to-task methodology in performing its assessment. While this does provide some information to the JFACC, it does not always directly link to the decision points identified during the planning process. When decision points are identified, a concurrent effort must be made to establish what assessment will support that decision point. This can be accomplished with the establishment of an interim milestone on specific objectives or the inclusion of another measure that should be tracked. One example would be establishing thresholds on the operational objectives already developed as part of the strategy to task methodology; such as 80% estimated accomplishment of objective 1 and 50% estimated accomplishment of objective 2. While progress on the effects and objectives are important for the JFACC's situational awareness, the JFACC should also be aware of how that progress relates to the decision points. Traditionally, most of the emphasis has been on the strategy-to-task linkage with minimal focus on decision points and the assessment required in supporting them. By incorporating the decision points into the assessment process, the OAT

could provide the JFACC with the progress on each operational objective, but also include progress toward a specific decision point, potential timeline until all factors for a decision point are accomplished, or the completion rate of specific items that relate to a decision point. Providing this information to the JFACC not only increases overall situational awareness, but also indicates potential areas of risk should the decision be made to transition to another phase early or allow for preparations to be made should it appear that a specific branch or sequel will need to be initiated. With the inclusion of the OAT and the operational assessment process in the development of decision points and their potential data requirements, the data requirements would be established and the assessment would be monitored daily allowing for better recommendations to the JFACC.

Assessments

While there can be three levels of assessment performed within a campaign, only two levels of assessment, Tactical Assessment and Operational Assessment, occur within the AOC construct. Tactical Assessment can also be considered Combat Assessment, which is "a predominantly objective assessment of tactical air and space operations."[9] Tactical Assessment focuses three main components: battle damage assessment, munitions effectiveness assessment, and mission assessment. Battle damage assessment considers the amount of damage as well as the resulting effects from targeting, either by lethal or non-lethal means, a specific objective. Munitions effectiveness assessment compares "the actual effectiveness of weapons systems and their munitions to their anticipated effectiveness."[10] This assessment can lead to changes in future weapons employment. Mission assessment "provides broad perspective of the impact and effectiveness of military operations waged against an adversary."[11] Though these components

appear to focus primarily on lethal operations, they can also be applied to non-lethal missions to aid in the refinement of future missions.

While tactical assessment is important; the second type of assessment, Operational Assessment, incorporates the results of all the tactical assessments accomplished and focuses on the combined effects of these missions. Operational Assessment is "predominantly subjective and assesses how air and space operations are proceeding towards achieving the air component's operational objectives."[12] Operational Assessment "is the first assessment level at which complex, indirect effects are evaluated, progress toward objectives is measured and recommendations for future action, beyond simple physical re-attack, are made."[13] The operational assessment is provided to the JFACC to aid with his decisions, as well as, included in the assessment report provided to the JFC-level assessment team. The JFC assessment team will incorporate all of the component-level operational assessments into a campaign assessment provided to the JFC commander. A campaign assessment determines "if military forces are achieving the desired end states of the Campaign or Operations Plan, along with making recommendations for the course of military operations."[14] The remainder of this discussion will focus on the operational assessment conducted within the AOC.

Strategy-to-Task Methodology

To understand the operational assessment conducted within the AOC, it is necessary to explain the strategy-to-task structure upon which this assessment relies. As previously mentioned strategy-to-task links objectives to tasks and shows the lineage from task completed to the overall effect desired. "The OA process starts with careful development of measures, indicators, and data mapping (strategy-to-task) and then follows in reverse order (action-to-effect) to link results back to their objectives. The OA process culminates with determining if

desired effects of a particular objective are met and, if appropriate, recommends changes to strategy (using predictive analysis) to meet intended goals."[15]

For a complete understanding of how strategy-to-task aids with operational assessment, an explanation of its construction will provide additional insight. The JFC commander provides his guidance along with specific objectives to the various components, including the air component command. The JFC guidance forms the basis to the air strategy developed at the air component command. With this foundation of the JFC commander's guidance and the air strategy, the Strategy Division in the AOC develops the strategy-to-task methodology. Figure 1 provides an illustration of the strategy-to-task methodology.
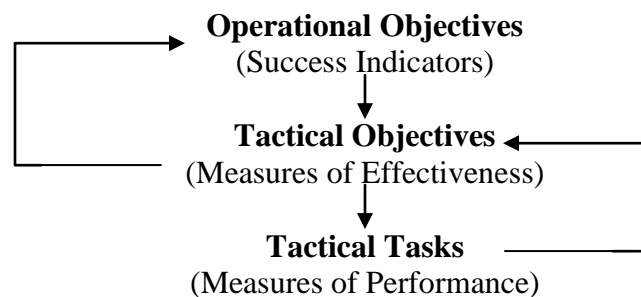
Operational Objectives
(Success Indicators)

Tactical Objectives
(Measures of Effectiveness)

Tactical Tasks
(Measures of Performance)

Figure 1: Diagram of Strategy-to-Task Methodology

The top of the strategy-to-task construct consists of operational objectives. "While the JFC normally provides operational objectives to the JFACC, they may also emerge through mission analysis or COA development."[16] These operational objectives "are the statement of the major goals to be achieved by a component in a particular theater or operational scenario."[17] Figure 2 provides an example of strategy-to-task. In that example, the operational objective is "gain and maintain air and space superiority to ensure freedom of action for Coalition forces."[18] Since this construct not only formulates the connection between tasks and strategy, but also aids with the assessment, a performance measurement is developed for each level. For operational objectives, the performance measurements are success indicators. Success indicators "are

normally developed from the most critical end state conditions that attainment of an objective will manifest in the operating environment."[19] Success indicators usually are qualitative and can be subjective. In the example shown in Figure 2, the success indicator is "air superiority is achieved over designated ZOCs (ZOCs 3,4,2, and 1 in that order) and eventually over all of CN by D+10."[20] This success indicator provides information on the importance of specific Zonal Operational Centers (ZOCs) as well as in what order they should be eliminated and the desired time frame. The OAT typically provides the JFACC with the degree of accomplishment at the level of the operational objectives, but can provide details at the lower levels of the construct as required.

AS (Air Superiority) Gain and maintain air and space superiority to ensure freedom of action for Coalition forces.
> **SI:** Air superiority is achieved over designated ZOCs (ZOCs 3,4,2, and 1 in that order) and eventually over all of CN by D+10
>> **SI AIR:** Provide a report on adversary air capabilities, options and intent

TO: AS2 Disrupt, then Destroy CN IADS
> **MOE:** Coalition air can operate throughout Zones 3&4 with less than 10% of missions ineffective due to CN IADS NLT D+5
>> **MOE AIR:** Report Coaliton sorties flown throughout Zones 3&4 and percentage of sorties ineffective due to CN IADS (report daily by zone)

TT: AS2A Destroy Zonal Operation Centers (ZOCs) and Intercept Operations Centers (IOCs) in zones 3 and 4 by D+5
> **MOP:** SAMs and AD aircraft operating in autonomous mode
>> **MOP AIR:** Monitor status of communications between ZOCs, IOCs, IADs/AD aircraft (report daily by zone)

Figure 2: Objective to Task Hierarchy Example[21]

After the establishment of the operational objectives, it is necessary to develop the next level of the construct consisting of tactical objectives. "Tactical objectives provide an outline of logical ways to achieve the effects required to produce success at the operational objective level."[22] The tactical objectives developed should support the accomplishment of the operational objective. For the example in Figure 2, the tactical objective is "disrupt, then destroy CN IADS."[23] Accomplishment of this tactical objective is one element that aids in the achievement

of the operational objective of gaining and maintaining air superiority. As already mentioned,

each level has a performance measurement, which at the tactical objective level consists of

measures of effectiveness. These measures of effectiveness "are criteria used to assess changes

in system behavior, capability, or operational environment that are tied to measuring the

attainment of an end state, achievement of an objective, or creation of an effect."[24] Measures of

effectiveness can either be qualitative or quantitative. Using the example in Figure 2, the

measure of effectiveness is "coalition air can operate throughout Zones 3&4 with less than 10%

of missions ineffective due to CN IADS NLT D+5."[25] This measure of effectiveness again

provides further information on specific zones of highlighted interest, an indicator of completion,

and a completion date. With this information, it is possible to ascertain the accomplishment of

the tactical objective.

From the tactical objectives, the final level of the strategy-to-task methodology consists

of tactical tasks. "Tactical tasks describe the detailed tactical actions and normally the direct,

physical effects we need to produce on targetable objects or entities in the operational

environment."[26] Accomplishment of the tactical tasks should lead in the accomplishment of the

tactical objectives. From this level, it is possible for the members of the AOC to determine the

missions to conduct as well as which targets to service. With the example in Figure 2, the

tactical task is "destroy Zonal Operation Centers (ZOCs) and Intercept Operations Centers

(IOCs) in zones 3 and 4 by D+5."[27] Destruction of the ZOCs and the IOCs contributes to the

accomplishment of destruction of the IADS. The performance measures for tactical tasks are

measures of performance. Measures of performance "are objective or quantitative measures

assigned to the actions of a tactical task and against which a tactical task's accomplishment, in

operations or mission terms, is assessed."[28] The measure of performance is "SAMs and AD

aircraft operating in autonomous mode."[29] The destruction of the ZOCs and IOCs would force

SAMs and AD aircraft to operate autonomous, which lead to that measure of performance. With

this construct, accomplishment of a tactical task supports the eventual achievement of its related

tactical objective. The assessed level of achievement of the tactical objective corresponds to the

accomplishment of its operational objective. With this layout, each tactical task relates to an

eventual operational objective that supports the overall air strategy and the JFC guidance.

To aid in the assessment of the strategy-to-task methodology, there are required pieces of

information that need to be obtained, which are considered AIRs. These AIRs should be

developed for each performance measurement, such as success indicators, measures of

effectiveness, and measures of performance. Figure 2 provides an example of the entire strategy-

to-task methodology. During the development of the AIRs, not only is the information

identified, but also the office responsible for providing that information. While each level of

assessment should be based upon the information gathered through these AIRs, there is an

element of subjective assessment included in the assessment.

Role and Responsibilities of the OAT

Within the AOC, there are five divisions that support each other in the conduct of the air

campaign. These divisions are the Strategy Division, Combat Plans Division, Combat

Operations Division, ISR (Intelligence, Surveillance, and Reconnaissance) Division, and

Mobility Division. While the various divisions conduct some tactical assessment, the OAT

within the Strategy Division is responsible for the operational assessment. Along with the OAT,

the Strategy Division consists of the Strategy Plans Team (SPT) and the Strategy Guidance Team

(SGT). In order to understand how the OAT supports the other members of the Strategy

Division, it is important to understand each team's focus in the division. The SPT's "principal

function is the development and maintenance of operational-level, long-range joint air strategy and associated branch and sequel plans that support"[30] the commander's objectives. This team typically focuses on the time-frame of 72-hours and beyond from execution. The SGT "is responsible for the AOC's transition from operational-level to tactical-level planning, and culminates in the detailing of daily guidance in the AOD."[31] The time frame of this team is 48-72 hours from execution. The OAT "operates within all aspects of strategy development and execution, focusing their efforts on evaluating the effectiveness and efficiency of air, space, and information operations."[32] While the OAT focuses on events that have already occurred, they provide an integral aspect to SPT and SGT as well as their time frames in the future.

While majority of the OAT's responsibilities revolve around conducting the operational assessment, there are a few responsibilities that involve their support of SPT and SGT. With regards to the SPT, the OAT is responsible to support the development of Joint Air Operations Plan (JAOP). Specifically, the OAT aids in the construct of the strategy-to-task methodology with its respective objectives and measures of performance or effectiveness. Along with the development of the JAOP, the OAT provides any recommended changes to the JAOP based on the results from the operational assessment. According to doctrine, the OAT should also aid throughout the planning process in the development of the strategy. As for the SGT, the OAT supports them with the development of the Air Operations Directive (AOD). Based on the results of the operational assessment, the OAT aids in the determination of emphasis on particular objectives as well as effects estimates based on the planned AOD. As mentioned, the remainder of OAT's responsibilities revolves around conducting the operational assessment. This includes developing information and data plan to support the assessment as well as coordinating with representatives in the AOC on data collection and any data clarification. After

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conducting the operational assessment, the team briefs the results to the JFACC and provides an operational assessment report to the JFC. Though the OAT's responsibilities revolve around planning and conducting the operational assessment, it is evident that this assessment contributes to refinement of the JFACC's strategy and any changes to its accomplishment.

The members of the OAT provide a variety of expertise and knowledge to assist in the accomplishment of the mentioned responsibilities. The core members of the OAT include: the Team Chief, two Operations Research Analysts, Information/Workgroup Manager, and IO Analyst.[33] During war-time operations, these core members would be augmented with the following individuals: Deputy Team Chief, three Operational Assessment Analysts, two Operations Research Analyst, ISR Operations Strategist Space Analyst, and two IO Analysts.[34] Along with these permanent members of the OAT, the team will have representative members from the other divisions in the AOC, as well as, from the different services, coalition members, and interagency organizations.

The core team members attend formalized training from the 505th Training Squadron as well as on-the-job training (OJT) upon arrival to the AOC. The formalized training from the 505th Training Squadron is mainly focused on the entire Strategy Division with some instruction on the role and responsibilities of the OAT and on performance measures, mainly the construct of the strategy-to-task methodology. The instruction material uses examples relating to major combat operations, which is different from the counterinsurgency and humanitarian relief operations currently occurring in Afghanistan, Iraq, or Haiti. For these current operations, the strategy-to-task development has provided to be an obstacle. Some of the core members participate in exercises with the objective of training the entire AOC. With this training and OJT, the level of instruction is directly related to the experience and knowledge of the Strategy

Division and OAT members leading and teaching the inexperienced members participating in the exercise. Due to the need to exercise all of the divisions in the AOC, the scenario utilized in most of these exercises involves an operation conducting major combat operations. Usually, the data fidelity and length of these exercises do not provide adequate experience in conducting operational assessments. During exercises, two issues typically occur with the data fidelity; one is that some data is available more quickly than would occur in real world operations, which provides the OAT members an unrealistic impression on data availability during operations. The other issue is that some data, which would be available in real world operations, such as unclassified reporting, was not developed during exercise creation. While typically, some data is not available to perform the operational assessment, more robust exercise development should include basic unclassified sources to provide the information for a baseline operational assessment.

Due to the time required for some effects to occur, particularly effects from non-lethal targets and information operations, the length of the exercises do not allow for adequate operational assessments to occur. However, these types of exercises concentrate on the formulation of the strategy-to-task methodology, which is the basis for operational assessments. Based on this instruction and the reliance on the strategy-to-task methodology for assessment and effects based approach to operations, all members of the OAT need to be able to develop a clear and measureable construct. Specifically regarding the Operations Research Analysts in the OAT, most of their formalized training resides in the acquisition career field based on their categorization as acquisition officers. Their ability to perform the required assessment relies upon their academic background as well as any OJT received. With all members of the OAT,

any prior experience or knowledge of performing an operational assessment contribute to a higher quality assessment.

Areas of Improvement

While doctrine advocates the construct of OAT supporting the SPT in developing the strategy-to-task methodology, observations indicate that a variety of methods have been employed. In some cases, the SPT developed the strategy-to-task and provided it to the OAT to assess the methodology. On the other extreme, the OAT developed the construct in isolation and provided it to the SPT. Due to the expertise of the OAT in performing assessments, they play an integral role in the development of the methodology. It is vital that they are included to ensure that the performance measures support the operational assessment. However, SPT members and other members of the AOC also need to be included in the development to provide operational expertise and knowledge. This would include accurate performance measures that support the objective or task, the availability of the necessary information for the performance measures, and the location of that information. Doctrine's recommendation of the SPT being responsible for the development with the support of the OAT provides the best solution for the development of strategy-to-task methodology.

With this basis of information regarding the strategy-to-task methodology, it is possible to address possible changes. When considering the amount of training received by the Strategy Division members, it is important to emphasize that the knowledge and experience of the team members have considerable impact on the quality of the strategy-to-task methodology. Along with the training is the observation that with new exercises or campaigns the strategy-to-task methodology is newly developed. Sometimes for exercises, materials from previous exercises are used as a starting template. In campaign changes or standing plans, the methodology is

adapted based on any changes from previous versions. Occasionally, some of the training

material from the 505th Training Squadron is used to aid in the development. While all of these

methods are useful, there are still times when the methodology is utilized without any type of

template.

While every campaign and exercise is different, some operational objectives remain the

same for most campaigns and exercises. For these similar operational objectives, a template of

the strategy-to-task methodology would provide a baseline during the planning process. This

template would provide the entire construct for each operational objective along with the pre-

determined office responsible for providing the data to the OAT. From this template, the SPT

and OAT could make the necessary adjustments to adapt it to the situation or at least use it as an

example. The construction of this template requires involvement of a variety of subject matter

experts. These experts would aid in ensuring that the performance measures adequately support

the assessment for the objectives and tasks as well as provide information on where and how to

obtain the required information. In addition to similar operational objectives, development of

these templates could address objectives utilized in operations other than major combat

operations, such as humanitarian assistance efforts or counterinsurgency efforts. With most of

the training and exercises focused on major combat operations, this makes it more difficult when

members of the Strategy Division need to develop strategy-to-task methodologies in these

situations. Once developed, these templates should be incorporated in current TTPs as well as

the 505th Training Squadron material.

While templates aids in the development of a solid strategy-to-task methodology, they

would also facilitate the data gathering process required to perform the operational assessment.

As mentioned, AIRs establish the information required as well as the office responsible for

providing that information to the OAT. Despite these AIRs, data gathering by the OAT for operational assessment still requires the majority of the OAT's efforts. Part of this issue is the difference in opinion regarding whether the organization responsible for the data provides the data to the OAT or whether the OAT should always have to ask for the data. In some instances, the OAT requested that the information be provided to them daily via a spreadsheet sent out. In other instances, the organization responsible for the data creates daily reports that includes the information and makes those reports available to anyone requiring the information. Other times, the organization responsible for the data does not provide the data forcing the OAT to request the data as needed. Most of the data comes from the ISR Division, which creates multiple reports throughout the day utilized by various AOC members, including the OAT. One example would be the intelligence summary, which provides a summary of the intelligence situation along with specifics on the adversary forces in major combat operations. Dependent upon the operation, the intelligence summary would provide the OAT with data satisfying AIRs, which would aid in the operational assessment.

It can take considerable time for the OAT to search through the various products to find and to interpret the data. It is a matter as to which organization should have the additional workload, either the organization responsible for the data or the organization requiring the data. This should be resolved during the process of establishing the AIRs. At that time, both the OAT and the organization responsible for the data need to address whether standardized products exist or can be modified that can provide the data in a format acceptable to the OAT. While most of the work will still reside within the OAT, this could improve working relationships with the organizations responsible for the data and will increase overall efficiency in obtaining the data.

Utilizing the template concept would ensure that arrangements between the OAT and the organization responsible for the data exist. Either the organization responsible for the data would utilize currently available or modified standardized products or they would provide the data directly to the OAT, as agreed upon during the creation of the template and identified within the AIR. As already mentioned, the template might be adapted or changed during the planning of an operation or exercise, but the AIRs already established could determine methods or products that would aid in increasing the efficiency of this process. During the development of the strategy-to-task construct, organizational subject matter experts along with OAT need to agree upon the most efficient method for providing the required data at the appropriate time to the OAT.

During the planning process, the OAT not only supports the SPT with the development of the strategy-to-task methodology, but also with determination of decision points for the commander. A decision point is "a point in space and time when the commander or staff anticipates making a key decision concerning a specific course of action."[35] Decision points are identified during wargaming of the operation's potential courses of action. While doctrine and TTPs identify when and who will accomplish the task of determining decision points, doctrine and TTPs do not address how to determine decision points.

In respect to the determination of the decision point, a couple of items should be considered. First, with a decision point being a point in space and time, how will the staff decide that the point has arrived? If a specific event triggers the arrival of the decision point and it can be observed through ISR of the adversary, then the appropriate priority intelligence requirement needs to be identified. If the event requires indications based on friendly force status, then the appropriate friendly force information requirements need to be identified. However, there are

some cases when the decision points would center on transition criteria to transition from one phase to the next. In this situation, the criteria for arrival at the decision point could be based upon a determined level of achievement for specific operational objectives, which would need to be determined at the same time as the decision point. The second item to be considered supports the first issue. This item considers the information needed by the commander to support the decision-making process. As with the first question, some of the information would be in the form of priority intelligence requirements or friendly force information requirements. Some of this information could be data already gathered and utilized by the OAT to accomplish the operational assessment. In these instances, inclusion of the OAT in the determination of the decision points and identification of the necessary information would be beneficial.

Since the OAT already consolidates data from various organizations with the AOC and performs an assessment that is provided to the commander, they are in the perfect position to track any conditions that relate to decision points and provide that information to the SPT for potential recommendations to the commander. While the OAT does provide an assessment on the accomplishment of operational objectives, these assessments provide the commander a forecast on the timing of future accomplishment. The OAT could utilize this forecasting capability of the operational objectives to provide the commander with a prediction on the timing of approaching decision points. If it is necessary for certain conditions to be obtained at the time of the decision point, any potential deviation from these conditions should be mentioned to the commander as potential risks. Dependent upon the nature of these conditions, the OAT could track information and forecast when those conditions will be achieved. This would provide the commander with critical information regarding the timing as well as possible risk of future decision points. Though not all decision points would be connected directly to the strategy-to-

task methodology, the OAT should still remain involved in the determination of the decision points, when they are should be activated, and what information would support the commander's decision.

Recommendations

These recommendations cover the three main issues discussed in the areas of improvement section contained in the main body along with the issue of training. The only formalized aspect of the training is the AOC courses provided by the 505th Training Squadron, which primarily focuses on the Strategy Division as a whole, with a couple of lessons on the OAT and strategy-to-task. The remainder of this training resides through OJT upon arrival at the AOC for either an operation or an exercise. Most of this training focuses on AOC operations in a major combat operation and does not address the difficulties of operational assessment across the full range of military operations, such as humanitarian relief or counterinsurgency operations. Training through OJT relies upon the knowledge and experience of the OAT team lead and most experienced analysts. Since the Strategy Division teams utilize the operational assessment to make recommendations to the commander for the adjustment of the daily and future strategy, the training of the OAT need to be more rigorous and better structured. Training needs to consider operational assessment in situations other than major combat operations. Some standard needs to be implemented regarding OJT and the level of instruction conducted. With these adjustments, the OAT would be able to better prepare to aid in the construction of the strategy-to-task methodology and the operational assessment.

One of the areas of improvement would involve templates of operational objectives in the strategy-to-task. The use of templates would aid with some of the issues with training and experience mentioned above. Templates would provide a starting point that the Strategy

Division could start from when developing the strategy-to-task construct. The objectives, tasks, and performance measures could be adjusted based upon the operation or exercise. These templates should be constructed with a team of subject matter experts able to determine the best performance measures for the objective or task and the information required to determine the performance measure. These subject matter experts need to have the knowledge and authority to determine the most efficient method of providing the required data to the OAT either by data products or through other methods agreed upon by the OAT. For situations other than operations and exercises, these subject matter experts could assist with determination of operational objectives and the rest of the strategy-to-task construct. These templates would be included in the training material provided by the 505th Training Squadron and TTPs. Though templates may be adjusted or used as examples during development of strategy-to-task, they could improve the quality of strategy-to-task methodologies.

Though templates could resolve some of the issues with the time spent by the OAT in obtaining all of the data, there are other recommendations for improvement. A determination needs to be made during the development of the strategy-to-task between the OAT and the office responsible for the data stated in the AIR on when and how often the data will be provided. With this established, the data would flow as needed, relationships between the office responsible for the data and the OAT would improve, and the efficiency of the OAT would improve.

A final area of improvement would be clarification of the OAT's role in determination of decision points in doctrine and TTPs. OAT's participation in the planning process needs to include the determination of the decision points, when those points should be activated, and what information should be tracked to support those decision points. With this involvement, the OAT would be able to aid the other teams of the Strategy Division with providing the commander with

a potential forecast on when decision points should occur. As the campaign develops, the forecast would be refined to provide the commander with an indication of upcoming decision points. In addition, the OAT can track information that would support the commander's decision. When it is time for the commander to make the decision, this information would provide the commander any potential risks. While these activities occur in some AOCs, the participation of the OAT during the planning phase determination of decision points needs to be more specifically defined in doctrine and TTPs.

Endnotes

[1] Joint Publication (JP) 3-0, *Joint Operations*, 2 October 2008, IV-30.

[2] Ibid, IV-31.

[3] Ibid, IV-32.

[4] Ibid, IV-32.

[5] Air Force Doctrine Document (AFDD) 2, *Operations and Organization*, 3 April 2007, 102.

[6] Joint Publication (JP) 3-0, *Joint Operations*, 2 October 2008, IV-31.

[7] Air Force Doctrine Document (AFDD) 2, *Operations and Organization*, 3 April 2007, 95.

[8] Messer, Lt Col Kirsten, "Timing is Everything: Operational Assessment in a Fast-Paced Flight," *Air & Space Power Journal,* XXII no. 2 (Summer 2008): 57.

[9] Air Force Operational Tactics, Techniques, and Procedures 2-1.1, Air and Space Strategy, 9 August 2002, 6.1.

[10] Air Force Operational Tactics, Techniques, and Procedures 2-3.2, Air and Space Operations Center, 13 December 2004, 3.5.2.2.3.3.

[11] Ibid, 3.5.2.2.3.4.

[12] Air Force Operational Tactics, Techniques, and Procedures 2-1.1, Air and Space Strategy, 9 August 2002, 6.1.

[13] Air Force Draft Tactics, Techniques, and Procedures 3-3.60, Operational Employment – Air and Space Operations Center, September 2006, 3.5.2.3.2.

[14] Air Force Operational Tactics, Techniques, and Procedures 2-3.2, Air and Space Operations Center, 13 December 2004, 3.5.2.2.1.

[15] Air Force Draft Tactics, Techniques, and Procedures 3-3.60, Operational Employment – Air and Space Operations Center, September 2006, 3.5.3.3.

[16] Joint Publication (JP) 3-30, *Command and Control of Joint Air Operations*, 12 January 2010, III-10.

[17] Student Guide, 505th Training Squadron, Subject: STR 838 – Development of Objectives, Tasks, Measures, Indicators, and Assessment Information Requirements (AIRs), 6.

[18] Ibid, 6.

[19] Ibid, 7.

[20] Ibid, 6.

[21] Ibid, 6.

[22] Ibid, 7-8.

[23] Ibid, 6.

[24] Ibid, 8.

[25] Ibid, 6.

[26] Ibid, 13.

[27] Ibid, 6.

[28] Ibid, 13.

[29] Ibid, 6.

[30] Air Force Instruction 13-1 AOC Volume 3, Operational Procedures – Air and Space Operations Center, 1 August 2005, 3.2.2.

[31] Ibid, 3.2.3.

[32] Ibid, 3.2.4.

[33] Air Force Operational Tactics, Techniques, and Procedures 2-3.2, Air and Space Operations Center, 13 December 2004, 3.5.4.3.

[34] Ibid, 3.5.4.4.

[35] Joint Publication (JP) 5-0, *Joint Operation Planning,* 26 December 2006, GL-10.

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